

MASON ROAD BRIDGE
Mason Road spanning the Bad River
Ithaca vicinity
Gratiot County
Michigan

HAER No. MI-94

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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD

National Park Service
Northeast Region
Philadelphia Support Office
U.S. Custom House
200 Chestnut Street
Philadelphia, P.A. 19106

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MASON ROAD BRIDGE

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Location: Mason Road spanning the Bad River, Ithaca vicinity,
Gratiot County, Michigan

UTM: 16.711705.4798777
Quad: Rathbone, Michigan

Date of Construction: 1904

Present Owner: Gratiot County Road Commission
920 E. Center Street
P.O. Box 187
Ithaca, Michigan 48847

Present Use: Vehicular Bridge

Significance: The Mason Road Bridge is one of the largest Pratt pony truss structures with pinned connections surviving in Michigan. It has been considered eligible for the National Register of Historic Places since 1992.

Project Information: This documentation was undertaken in March of 1995 in accordance with the Memorandum of Agreement agreed to by the Gratiot County Road Commission. The Memorandum of Agreement is a mitigative measure used prior to relocating the truss to Overbrook Golf Course in Newark Township, Gratiot County, Michigan.

Mr. Fred Walkington
Engineer-Manager
Gratiot County Road Commission
Ithaca, Michigan 48847

Summary Description of Bridge and Setting

Over the Bad River, Ithaca Vicinity, Gratiot County, Michigan. Mason Road is a north-south road situated on a 20.12 meter (66 foot) right-of-way. Polk Road intersects Mason Road approximately 804.6 meters (2640 feet) north of the bridge. Charles Road intersects Mason Road approximately 804.6 meters (2640 feet) south of the bridge. Mason Road is the principal road used by residents of Galloway and Langport when they want to travel south across the Bad River. The Mason Road bridge provides access for these residents into the Gratiot-Saginaw State Game Area. This game area is located in Hamilton Township which is immediately south of Ithaca. In addition, the Mason Road Bridge provides access to markets and fields by farmers on both sides of the river. The Mason Road Bridge is typical of the many "farm to market" bridges constructed in the late 1800's and early 1900's in the rural areas of Michigan.

The original plans for the Mason Road Bridge cannot be located. The bridge has no nameplate. A review of road commission files has uncovered no record of construction or photographs.

The bridge is a single span steel pony truss with pinned connections. Each truss has five panels which are 4.22 meters (13 feet 10 inches) long for a total truss length of 21.94 meters (72 feet). The top and inclined members consist of one 254 mm (10 inch) wide steel top plate riveted to two 152 mm (6 inch) channels. The vertical members consist of two 127 mm (5 inch) channels connected with lattice work. The diagonals and bottom chords are rectangular bars. The four floor beams are 305 mm (12 inch) deep I-beams. The truss has a height of 2.39 meters (7 feet 10 inches). The bridge is a Pratt Pony Truss.

The distance between parallel trusses is 5.18 meters (17 feet). The clear width of the bridge is 4.85 meters (15 feet 11 inches). The bridge deck consists of wood slats which are 89 mm wide by 89 mm thick (3.5 inches by 3.5 inches). The wood deck is supported by nine 178 mm (7 inch) deep steel stringers. The bridge railing is an iron lattice railing. The abutments and wingwalls are constructed of concrete. The footings are assumed to be concrete.

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The Mason Road Bridge is typical of most bridges built in southern Michigan around the late 19th century and early 20th century. Because of the relatively lightweight truss superstructure, the bridge was fabricated at a steel fabrication plant and shipped by rail to the job site. The contractor constructed the substructure units and then assembled and erected the steel truss.